Service Date: June 22, 1983

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

* * * * *

IN THE MATTER of the Application of MONTANA-DAKOTA UTILITIES, INC. for Authority to Establish Permanent Increased Rates for Gas Service in the State of Montana.	UTILITY DIVISION DOCKET NO. 82. 6.40 ORDER NO. 4918b

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

* * * * *

IN THE MATTER of the Application of MONTANA-DAKOTA UTILITIES, INC. for Authority to Establish Permanent Increased Rates for Gas Service in the State of Montana.
UTILITY DIVISION
DOCKET NO. 82.6.40
ORDER NO. 4918b

APPEARANCES

FOR THE APPLICANT:

Steven G. Gerhart and Paul Sandness, Attorneys, Montana-Dakota Utilities Company, 400 North Fourth Street, Bismarck, North Dakota 58501

John Alke, Hughes, Kellner, Sullivan & Alke, Attorneys at Law, 406 Fuller Avenue, Helena, Montana 59624

FOR THE MONTANA CONSUMER COUNSEL:

James C. Paine, Montana Consumer Counsel, 34 West Sixth Avenue, Helena, Montana 59620, appearing on behalf of the consuming public of the State of Montana.

John C. Allen, Consumer Counsel Staff Attorney, 34 West Sixth Avenue, Helena, Montana 59620, appearing on behalf of the consuming public of the State of Montana

FOR THE INTERVENORS:

John Ross, Attorney at Law of the firm of Anderson, Brown, Gerbase, Cebull & Jones, P. C., 315 North 24th Street, Billings, Montana 59101, appearing on behalf of Pierce Packing Company

C. W. Leaphart, Jr., Attorney at Law, The Leaphart Law Firm, 1 North Last Chance Gulch, #6, Helena, Montana 59601, appearing on behalf of Great Western Sugar Company and Holly Sugar Company

FOR THE COMMISSION:

Robert Nelson, Staff Attorney Eric N. Eck, CPA, Chief of Revenue Requirements Michael L. Foster, Rate Analyst Theodore P. Otis, Chief Economist

TABLE OF CONTENTS

BEFORE:

THOMAS J. SCHNEIDER, Chairman
CLYDE JARVIS, Vice-Chairman
DANNY OBERG, Commissioner

FINDINGS OF FACT

PART A
GENERAL

1. On June 18, 1982, the Montana-Dakota Utilities Company (MDU, the Company or Applicant) filed an application with the Commission seeking a general rate increase for gas service. MDU requested an annual increase in revenues in the amount of $6,951,673.

2. Included in the June 18th filing was a request for interim relief in the amount of $4,317,825. On July 12, 1982, the Commission granted an interim increase of $2,599,807 in Order No. 4918.

3. On July 29, 1982, the Commission published notice of the application and a proposed procedural schedule. Detailed Proposed Procedural Orders were individually served on parties to the last MDU rate case and the service list submitted with the application. After considering amendments requested by MDU and the Montana Consumer Counsel, the Commission issued a final Procedural Order on August 16, 1982.

4. Upon petition, intervenor status was granted to the Montana Consumer Counsel (MCC), Pierce Packing Company, Great Western Sugar Company and Holly Sugar Company.

5. On November 9, 1982, the Commission published a Notice of Public Hearing. Pursuant to the Procedural Order in this Docket, the hearing was scheduled to commence on December 7, 1982.

6. MDU filed voluminous updated testimony with the Commission on November 26, 1982. This filing was to support a "revised requested increase " of $6,885,369. Although the new request was slightly lower ($66,304) than the original, it represented the net effect of at least two substantial changes. Updated capital costs caused an estimated revenue requirement decrease of $1.243 million, while the alleged loss of off-system sales caused an increase of $1.44 million. The remainder of the difference is due to rate base and expense adjustments.

7. On December 2, 1982, MCC filed objections to MDU's updated filing, and requested that it be excluded from the record, or that the hearing date be continued. MDU was given the opportunity to orally respond to the objections. The Company agreed to continue the hearing date and to waive application of 69-3-302, MCA (9-month provision), for an additional three month period. In consideration of this agreement and the desire to allow adequate discovery regarding major issues, the Commission issued an Amended Procedural Order establishing a new hearing date of March 8, 1983.

8. MDU subsequently filed a request for additional interim rate relief on December 8, 1982. The Company requested an additional

$3,129,000.

9. Upon considering the Company's application and briefs submitted in support and opposition thereof, the Commission issued Order No. 4918a on January 3, 1983, denying additional interim relief.

10. Following issuance of notice, the hearing on MDU's application in this Docket commenced at 9 :00 a . m. on March 8, 1983, concluding on March 10, 1983, at the Ramada Inn (Trapper Room), Billings, Montana. Public hearings for the convenience of the Public were also held at 7:00 c.m.. March
8, 1983, at the same location, and at 7:30 p.m., March 9. 1983. at the Miles Community College, Room 106, Miles City, Montana.

PART B

RATE OF RETURN

Capital Structure

11. Applicant's witness, Mr. John Renner in his original testimony presented a gas utility capital structure as anticipated at September 30, 1982.
In his revised and rebuttal testimony, Mr. Renner presented the actual September 30, 1982, gas utility capital structure.

12. Applicant proposed the following capital structure and associated costs (MDU, Exh. J, St. F, p. 1 of 2):

Description	Ratio	Cost	Weighted Cost
Long-Term Debt	45.191%	8.774%	3.965%
Preferred Stock	15.820	8.805	1.393
Common Equity	38.989	15.500	6.043
Total	100.000%		11.401%

13. Dr. Caroline Smith, expert witness for the Montana Consumer Counsel, in her supplemental testimony proposed an allocated gas

utility capital structure as of September 30, 1982, adjusted for the inclusion of the Company's $25 million December issue of long-term debt. Dr. Smith adjusted her capital structure to eliminate nonutility and electric operations. Dr. Smith also included in her proposed capital structure the unamortized gain on reacquired debt at zero cost. (MCC Exh. 5, p. 35)

14. MCC proposed the following capital structure and associated costs (MCC Exh. 6, Exh. CMS-6):

Description	Ratio	Cost	Weighted Cost
Long-Term Debt	43.91%	9.05%	3.97%
Preferred Stock	16.09	8.81	1.42
Common Equity	39.67	13.50	5.36
Unamortized Gain	.33	0.00	0.00
Total	100.00%		10.75%

Updating

15. In her supplemental testimony, Dr. Smith included in her capital structure the Company's $25 million December issue of long-term debt. She also adjusted the cost rate on the term loan to reflect the current prime rate as that term loan bears an interest rate of prime (or LIBOR) plus l/2 percent (MCC Exh. 6, pp. 2-3).

16. MDU did not include the $25 million debt issue as their capital structure was not updated past September 30, 1982 (TR, p. 148). During the hearing, however, while being questioned by Mr. John Alke, Company attorney, if he had any changes or modifications to his testimony, Mr. Renner replied:

. . . I would have one addition, and that is to provide an update on the Company's financing plan for the last part of 1982, in that in December of 1982, the Company issued $25 million of first-mortgage bonds, thus enabling the Company to repay its term loan that was outstanding at September 30th of 1982. . . where that $10 million was merely, in essence, replaced by the issuance of first-mortgage bonds. (TR, p. 145)

Concerning Dr. Smith's inclusion of the $25 million debt issue without also reflecting the resulting reduction of the term loan by $10 million, Mr. Renner testified, "That, in my opinion, is a duplicative reflection, because a portion of -- excuse me, the issuance of the first-mortgage bonds enabled to us (sic) repay that term loan in its entirety." (TR, pp. 147-148)

17. Since the December issuance of the $25 million long-term debt occurred within 12 months of the end of the 1981 test period, the Commission finds that it is appropriate to include said - debt in the Company's capital structure as a known and measurable change. The Commission also feels that in recognizing the issuance of that debt, recognition must also be given as to the use of the proceeds to eliminate the September 30, 1982, balance of theterm loan in the amount of $10 million. The Commission, therefore' finds the inclusion of the $25 million long-term debt issuance and the exclusion of the $10 million term loan balance as of September 30, 1982, from capital structure to be proper in this proceeding.

Allocation

18. In Order No. 4834c of Docket No. 81.7.62, because some confusion had existed surrounding the proper approach to be used in determining MDU's capital structure amounts for the gas and electric utilities, the Commission provided an explanation of the proper allocation procedure:

Starting with the consolidated MDU company's common equity, investment in all nonutility subsidiaries is deducted, which leaves utility common equity. The ratio of gross gas utility plant plus gas construction work in progress to total gross utility plant plus total utility construction work in progress is then applied to total utility common equity to determine the portion attributable to the gas utility. The same ratio is applied to total utility preferred stock. The ratio is also applied to utility debt, but only after REA mortgage notes and pollution control debt are allocated directly to the electric utility. The same procedure should be used in computing the electric utility capital structure. (Order No. 4834c, Finding of Fact No . 55)

19. In the current Docket, MDU chose not to adhere to the allocation procedure described above. Instead, the Company proposed a gas capital structure which would be identical to their electric capital structure. The total amount of long-term debt, thus, includes over $32 million of directly assignable electric utility debt (MDU Exh. J, St. F, p. 1 of 3).

20. MCC witness Dr. Smith proposed to allocate long-term debt in the manner supported by the Commission in the last MDU general gas case, Order No. 4834c of Docket No. 81.7.62. Dr. Smith first made direct assignments (for both nonutility equity capital and electric-identified long-term debt) and then allocated the remaining common utility debt between electric and gas operations based on the gas allocation factor of 41.69 percent (MCC Exh. 6, p. 5.

21. The Commission believes that directly assignable debt should be matched with the utility capital structure to which the proceeds can be traced. The remaining common utility debt should then be allocated between gas and electric according to the ratio described in Finding of Fact No. 18. The Commission, therefore, determines Dr. Smith's procedure for allocating long-term debt to be proper in this proceeding. The following table shows the proper computation of the approved amount of long-term debt in this proceeding in the amount of $62,020,000:

	(000)
First Mortgage Bonds	$ 89,775
Sinking Fund Bonds	33,989
Total	$123,764*
Add: New Bond Issue	25,000
Total	$148,764**
Allocation Factor	.4169
Approved Long-Term Debt	$ 62,020

*Reflects the zeroing-out of the term loan balance of $10 million as of September 30, 1982, as a result of the use of the proceeds of the new bond issue to pay off the term loan balance.

** Excludes $32,461,000 of pollution control and REA debt, which is directly assignable to electric utility.

22. Concerning the amount of preferred stock and common equity, the allocation factor of 41.69 percent must be applied to the total utility figures to determine the proper amounts in the capital structure. MDU and MCC agreed upon the proper amounts of allocated preferred stock and common equity in MCC Exh. 6, Exh. CMS-6 and MDU Exh. I, p. 2. The Commission, therefore, determines the proper amount of allocated preferred stock in this proceeding to be $24,260,000 and the proper amount of allocated common equity to be $59,789,000.

Unamortized Gain on Reacquired Debt

23. As part of her proposed capital structure, MCC witness Dr. Smith included unamortized gain on reacquired debt as a zero-cost capital item. Dr. Smith explained her proposal:

. . . All of the reacquired bonds are sinking fund bonds which must be retired on an annual basis over the life of the debt, according to the sinking fund requirements for each bond. Because of this, the reacquisition and retirement of the debt before its maturity date is necessary. At the same time, the gain should be credited to customers, just like the interest expense on these bonds has been charged to them while they were outstanding. MDU has not credited the gain to customers . ... The unamortized gain is included on the balance sheet as a deferred credit, just like deferred income taxes, and can be accounted for as a zero-cost capital structure item or as a rate base reduction. I have included it as a zerocost capital structure item. (MCC Exh. 5, p. 38)

24. Mr. Renner of MDU disagreed with Dr. Smith's proposal of including the aforementioned gain in capital structure. Renner

testified:

. . . The amortization of the gain on reacquired debt is being deducted from the cost of debt, thereby reducing the embedded debt cost and passing this gain on to the customer. To include the unamortized gain as a zero-cost component within the capital structure gives the customer a duplicate cost reduction. (MDU Exh. I, p. 3)

25. The Commission does not agree with Mr. Renner that including the unamortized gain as a zero-cost component in the capital structure gives the customer a double cost reduction. The Company has had access to the gain, and therefore, if no adjustment is made, MDU will earn a return on the unamortized balance equal to the overall return to be earned on rate base. MDU's approach of offsetting the cost of debt with the amortized portion of the gain and making 'no adjustment for the unamortized 'balance does not allow for immediate flow-through of the gain to the customers. The Commission believes, however, that the entire gain should be reflected as an immediate flow-through to customers so that the credit will be given to customers who, before the reacquisition, paid the interest expense on the bonds.

26. The Commission agrees with Dr. Smith that the unamortized gain has some similarity to deferred taxes for ratemaking purposes. In previous decisions, the Commission has treated deferred taxes as a rate base reduction rather than as a zero-cost capital item (example: Order No. 4928a in Docket No. 82.4. 28) . Including deferred taxes in capital structure at zero cost produces about the same result as deducting the amount from rate base. However, this Commission has consistently indicated a preference for the rate base reduction approach because the tax accruals are used to acquire assets. Similar logic applies to the treatment of unamortized gain on reacquired debt as this gain would be used to acquire assets. Such a rate base reduction, though relatively small because of the necessary allocations to the gas utility and the Montana portion of rate base, would preclude the Company from earning a return on the gain. The Commission finds, therefore, that the unamortized gain

on reacquired debt should be treated as a deduction from rate base in the allocated amount of $126,000, rather than as a zero-cost capital item.

Cost of Capital

Preferred Stock

27. The cost of preferred stock is not a controverted issue in this case. The cost of preferred stock is based on the embedded cost of preferred shares outstanding at September 30, 1982, and has been determined to be 8.81 percent by the Applicant and MCC (TR, p. 147). This cost is acceptable tn the Commission.

Long-Term Debt

28. Dr. Smith of MCC included one year's amortization of gain from reacquired debt as of September 30, 1982, as a deduction to interest expense.
Dr. Smith explained:

As of December 31, 1981, MDU had reacquired a portion of its sinking fund debt (which is allocated to gas and electric utility operations), and had realized a net gain of $1,358,359 on the reacquisitions. ...The weighted average time to maturity on the reacquired debt was 7.92 years, which is the appropriate time to amortize the gain. Each year's amortization is an offset to current interest expense and thus reduces the embedded cost of debt. (MCC Exhs. 5 and 7, pp. 37-38.)

29. The Company also included amortization of the gain as a reduction of interest expense. Mr. Renner explained in his rebuttal testimony, "The amortization of the gain on reacquired debt is being deducted from the cost of debt, thereby reducing the embedded debt cost and passing this gain on to the customer" (MDU Exh. I, p. 3). As previously explained in Finding of Fact No. 24, the Company disagreed with also giving the customer favored treatment as to the unamortized portion of the gain.

30. The Commission agrees with Dr. Smith and the Company that the amortization of the gain from reacquired debt should serve as a reduction to interest expense for long-term debt. This treatment allows customers to be compensated, as they paid the interest on the bonds while they were outstanding. As shown on Exh. J, Revised Rule 38.5.147, page 1 of 3, the Company has offset long-term debt interest expense with amortization of the gain from reacquired debt. The Commission determines, therefore, that Dr. Smith's inclusion of further gain as an offset to debt expense is inappropriate in this Docket as its inclusion would result in double counting.

31. On Exh. CMS-7, Dr. Smith presented the interest cost associated with the $25 million December issue of long-term debt to be $3,005,000. During the hearing, Mr. Renner of MDU testified that the actual cost rate of the debt issue was 12.102 percent, which results in interest expense of $3,025,000 (TR, p. 147). Because Mr. Renner's cost rate represents actual data, the Commission determines that $3,025,000 should be the figure used to represent the interest expense for the $25,000,000 December issue of long-term debt.

32. Pursuant to the previous discussion of the proper amount of longterm debt in Finding of Fact Nos. 18 through 21, the Commission determines the proper cost of long-term debt to be 9.01 percent in this proceeding, as calculated below:

	Amount (000)		Annual Cost (000)
First Mortgage Bonds	$ 89,775		$ 7,786
Sinking Fund Bonds	33,989		2,600*
New Bond Issue	25,000		3,025
Total Utility	$148,764		$13,411
Allocation Factor	x .4169		x .4169
Total Gas Utility	$ 62,020		$ 5,591
Cost of Gas Long-Term Debt		9.01%	

* Includes amortization of gain from reacquired debt as a deduction to interest expense.

Common Equity

Applicant

33. Based on the revised testimonies of Mr. William Glynn

and Dr. Dennis Fitzpatrick, Mr. John Renner proposed a cost of common equity of 15.5 percent. Originally, MDU had sought an equity return of 17.0 percent, but declining capital costs prompted the Company to revise their original proposal. Mr. Glynn explained, "The Company believes that the Commission should have and use the most current information available to it at the time rates are set in this proceeding." (MDU Exh. L, p. 3)

34. Dr. Fitzpatrick's determination of MDU's cost of common equity capital was based on four separate studies: (1) the equity-debt risk premia approach; (2) a descriptive study of the financial performance of MDU and comparable risk companies; (3) the discounted cash flow (DCF) method; and (4) the market valuation modeling approach (MDU Exh. U, p. 4). The result of each of these studies supported Dr. Fitzpatrick's original conclusion that
MDU's cost of equity is not less than 17 percent, and supported his revised conclusion that MDU's cost of common equity. capital is between 15 and 16 percent as of mid-October, 1982 (MDU Exh. U, p. 5; MDU Exh. V, p. 4).

35. In his equity-debt risk premia approach, Dr. Fitzpatrick examined the return/risk relationship of MDU's common stock vis-a-vis alternative investment opportunities. One of the major premises in this analysis is that the cost of common equity capital is never less than the cost of a utility's long-term debt (MDU Exh. U, p. 10). In his revised testimony, Fitzpatrick testified:

Given the dismal market conditions of early 1982, I estimated that the equity-debt risk premia had declined to the 1% to 3% range. With the recent sharp improvement in the financial markets, it is my judgment that the equity-debt risk premia is now between 2% and 4%. Based on the current A-rated utility bond yields of approximately 13%, it is apparent that the equity-debt risk premia approach indicates that MDU's cost of common equity capital is currently between 15% and 17%. (MDU Exh. V, pp. 2-3)

Comparatively, in his original testimony, Dr. Fitzpatrick determined that the equity-debt risk premia approach indicated that MDU's cost of common equity capital was then between 17% and 19%. (MDU Exh. U, p. 16)

36. In his comparison of comparable risk companies, Dr. Fitzpatrick first analyzed MDU's overall financial performance since 1970 and then compared that data to the five sets of companies that he felt have exhibited business and financial risk characteristics generally similar to the risk associated with MDU's gas utility operations. Dr. Fitzpatrick estimated the average cost of common equity for each of the five samples with the DCF and market valuation modeling approaches. Fitzpatrick believed that the results of those analyses confirmed the risk comparativeness of those utilities with MDU (MDU Exh. U, p. 29). He concluded that his analysis of the financial performance of those comparable companies demonstrates that MDU's cost of equity capital has been significantly above 13% for the last nine years. (MDU Exh. U, p. 32)

37. As stated above, Dr. Fitzpatrick performed a DCF analysis of various sets of companies which he determined to have comparable risk characteristics to MDU. The results of his original analyses showed that the average cost of common equity capital for those companies has been generally between 15.0% and 19.0% during 1981 and 1982. However, because of significant downward biases in implied growth rates, Fitzpatrick reasoned that MDU's common equity costs have averaged between 17% and 19% during the same time period (MDU Exh. U, pp. 34-35). In his revised testimony, due to substantial declines in dividend yields, Fitzpatrick testified that the revised DCF results indicated that MDU's cost of equity is between 16% and 19% (MDU Exh. V, p. 3). In calculating MDU's equity return, Dr. Fitzpatrick gave relatively more weight to more recent dividend yield data and the Value Line dividend growth projections (MDU Exh. U, p. 40).

38. In his market valuation modeling approach, Dr. Fitzpatrick developed a model to show the relationship between a sample of firms' market to book value ratios and a set of independent variables, and from that he determined the sample's average cost of common equity capital (MDU Exh. U, p. 40). Fitzpatrick compiled a data base of financial parameters that he felt affect MDU's market to book value ratio most significantly. The data

base subsequently developed consisted of data for each company in the five comparable risk samples. Fitzpatrick noted that although each of the variables were statistically significant the return on common equity and the incremental cost of long-term debt were by far the most significant. Once the models were specified, the cost of common equity was estimated by setting the market to book value ratio equal to 100% and solving for the resulting return on common equity . (MDU Exh . U, pp . 40-42) Fitzpatrick concluded that his models showed that the average cost of equity for the five sets of sample companies was between 17 and 18% in his original testimony (MDU Exh. U, p. 43). In his revised testimony, Fitzpatrick revised the market valuation studies to reflect the decline in MDU's cost of long-term debt from 17% in May to 13% in October, the result of which was an average cost of equity between 14 and 15%. (MDU Exh. V, p. 3; Sched. DBF-80)

39. In his original testimony, Dr. Fitzpatrick summarized that the results of his four studies fully supported MDU's requested return on common equity capital of 17% (MDU Exh. U, p. 45). In his revised testimony, Fitzpatrick summarized the results of updating his studies and determined that as of mid-October, 1982, MDU's cost of common equity capital was between 15% and 16% (MDU Exh. V, p. 4).

MCC

40. MCC witness Dr. Caroline Smith used a discounted cash flow (DCF) model to determine MDU's return on common equity. The DCF analysis yielded a range of return on equity of 13.0 to 13.5 percent. Dr. Smith recommended that the Commission allow a 13.5 percent common equity return. (TR, pp . 350-351)

41. Concerning the dividend yield portion of the DCF model, Dr. Smith calculated dividend yields for 95 electric and combination electric and gas utilities traded on the New York Stock Exchange on an average price basis for the six months from April through September, 1982. The average dividend yield for the 95 companies was 11.7 percent. (MCC Exh. 6, Appendix B, p. 3)

42. Expected dividend growth was calculated by examining growth rates in dividends, earnings, and book value over a ten year period for the companies in the study. The weighted average of all growth rates utilized in the study of these companies was 3.3 percent during that time period. (MCC Exh. 6, Appendix B, pp. 4-5)

43. Dr. Smith used her DCF model to show the relationship between the cost of equity for the Applicant and the industry as a whole. She used the DCF statistical analysis to estimate MDU's cost of common equity capital. (MCC Exh. 5, p. 13)

44. In explaining her recommendation of 13.0 to 13.5 percent return on common equity, Dr. Smith summarized that the Company's dividend yield was 10.51 percent, based upon market prices over the six-month period ended September 30, 1982, and the indicated dividend rate at the end of September. Her estimate of the long-term dividend growth investors anticipate for MDU is in the range of 2.75 to 3.25 percent, which reflects an expectation that MDU will continue to outperform the industry, but not to the same degree that was true in the past. In her original testimony, the Company's dividend yield was 10.3 percent, based upon similar data ending June 30, 1982. (MCC Exh. 5, pp. 8, 13; Exh. 6, Appendix B, Table B-5)

45. Both MDU and MCC used a DCF model to determine the cost of equity in this proceeding. The Commission has consistently preferred the DCF approach to determining cost of equity to other models based on its widespread acceptance as the most objective and accurate means of measuring investor expectations. In each DCF model in this case there are elements which are based upon the judgment of the particular witness. Dr. Fitzpatrick performed a DCF analysis of 5 sets of comparable companies, and Dr. Smith evaluated 95 companies in her model. This Commission has consistently perferred the process of evaluating many companies in the DCF model so that factors which are unique and unusual to a particular firm can be eliminated or disregarded as being atypical utility conditions. In determining the growth portion of the DCF equation, Dr. Fitzpatrick placed more weight on the Value

Line projected dividend growth rates than on the implied dividend growth rates (MDU Exh. U, p. 37). The Commission historically has downplayed the significance of such subjective projections because they are difficult to test. Overall, therefore, the Commission finds the MCC approach to DCF analysis preferable to that of the Company in this proceeding.

46. In determining MDU's cost of common equity, the Commission concentrated on Dr. Smith's updated Appendix B, Tables B-6 and B-7. The Commission chose to disregard Smith's Table B-5 in calculating the proper return because this table represents an extreme low based on a single growth factor. Dr. Smith's Tables B-6 and B-7 incorporate MDU's three most important growth rates and all growth rates based on the calculations of Table B-2. Tables B-6 and B-7 also incorporate industry yield and growth figures, MDU-specific yield and growth figures, and an MDU risk factor. The results of Tables B-6 and B-7, 13.37 percent and 14.92 percent, represent to the Commission the acceptable range of reasonableness for determining MDU's cost of equity. The three most important growth rates -- three-year book value growth, ten-year book value growth, and three-year earnings growth -taken together explain almost two-thirds of the variability in dividend yields based on the data on Table B-2 (MCC Exh. 6, p. 6). Incorporating all growth rates over a ten year period serves to give an overall view of MDU's cost of equity in relation to the industry as a whole over a large enough time period to show definite tendencies. The Commission believes that utilizing 13.37 percent and 14.92 percent offers a reasonable approach to meld together industry and Company figures on a weighted basis. The Commission, therefore, determines the averaging of the results of Dr. Smith's updated Tables B-6 and B-7 to be proper in this proceeding to determine MDU's cost of equity. The resulting approved cost of common equity is 14.15 percent [(13.37 + 14.92) ÷ 2 = 14.15].

Rate of Return

47. Based on the findings for long-term debt, preferred stock, and common equity in this proceeding, the following capital structure and costs resulting in an 11.08 percent overall rate of

return are determined appropriate:

Description	Amount (000)	Ratio	Weighted Cost	Cost
Long-Term Debt	$ 62,020	42.46%	9.01%	3.83%
Preferred Stock	24,260	16.61	8.81	1.46
Common Equity	59,789	40.93	14.15	5.79
Total	$146,069	100.00%		11.08%

PART C
RATE BASE

48. Consistent with previous Commission decisions, both MDU and MCC proposed a 1981 average rate base, adjusted to include certain known and measurable 1982 changes. One of the primary considerations of the Commission in rate base decisions has always been proper matching of test year income with the plant that produced that income. The Commission, therefore, finds a 1981 average rate base, adjusted for certain known and measurable 1982 changes, to be appropriate in this proceeding.

Net Plant in Service

49. MDU proposed an average net plant in service adjusted to include all gas supply and transmission plant additions expected to be in service by September 30, 1982. In their updated filing, MDU adjusted 1981 average rate base to include only those projects which were actually completed by September 30,1982(MDU Exh.O, p.2).In his original testimony, George Hess of MCC adjusted MDU's interim net plant in service to reflect the inclusion of plant actually completed as of September 30, 1982. In his updated testimony, Mr. Hess reflected slightly higher costs for those same plant additions than he had originally reflected. Mr. Hess testified that he was told that those plant additions were required for making off-system sales (MCC Exh. 1, p. 4). Hess stated:

> . . . MDU adjusted the 1981 test year jurisdictional allocation to reflect those sales. Consequently it is appropriate to adjust test year plant in service to include the facilities required for making the sales. (MCC Exh. 1,P. 4)

Hess also adjusted the plant additions to reflect deductions of accrued depreciation and accumulated deferred income taxes (MCC Exh. 1, p. 4).

Hess emphasized that he did not adjust any rate base items to September 30, 1982, except plant required to make off-system sales. (MCC Exh. 1, p. 6)

50. The Commission believes that the MCC adjustment concerning plant additions is proper in this proceeding. Proper matching would thus be achieved for off-system sales and the plant that produced such revenue. The Commission also believes that it would be proper matching to reflect the accrued depreciation and accumulated deferred income taxes relative to the plant additions. The Commission, therefore, determines the MCC adjustment in the amount of $3,887,000 as an addition to net plant in service to be proper in this proceeding.

Unamortized Gain

51. As discussed in Finding of Fact paragraph No. 23, Dr. Smith testified that the unamortized gain on reacquired debt could be treated as a rate base reduction, similar to the treatment of deferred taxes (MCC Exh. 5,3 p. 38). In past cases, the Commission has treated deferred taxes as a rate base reduction rather than allowing them into capital structure as a zero-cost item. The Commission finds that because of the reacquisition of the debt at a discount, a cash savings to MDU results which is accounted for as a gain.

By deducting the unamortized portion of the gain from rate base, the Commission is precluding the Company from earning a return on the unamortized gain. After careful consideration, the Commission finds that the unamortized gain is similar to deferred taxes for ratemaking purposes. The Commission determines, therefore, that the unamortized gain on reacquired debt should he treated AR An allocated deduction from rate base in the amount of $126,000.

Total Rate Base

52. As a result of the approved adjustments to net plant in service, the Commission finds the proper amount of total 1981 average rate base, adjusted for known and measurable changes, to be $44,750,000.

PART D

REVENUES, EXPENSES, AND REVENUE REQUIREMENT

53. Mr. Donald Ball of MDU sponsored exhibits and testimony which detailed the cost of service and average rate base amounts which support the original revenue increase request of $6,951,673 and the revised revenue increase request of $6,885,369. The original request was based on an overall rate of return of 12.808 percent, and the revised request was based on an overall rate of return of 11.401 percent, which reflected a revision of the requested return on equity from 17.0 percent to 15.5 percent and actual capital structure at September 30, 1982 (MDU Exh . J, p . 1) . Mr. Ball indicated that the Company utilized a 1981 historical test period as a basis for its filing and made various 1982 adjustments. MR. Ball concluded that, based on the test period ending December 31, 1981, the Company would require additional revenues of $6,885,369 in order to earn an overall return of 11.401 percent.

54. Mr. George Hess, expert witness for MCC, presented testimony and exhibits on the cost of service and the proper rate base. Mr. Hess urged the use of an average 1981 rate base, as was also proposed by the Company, adjusted for certain known and measurable 1982 changes. He prepared a series of schedules and presented related testimony which culminates with the change in revenues required to produce the 10.75 percent rate of return recommended by Dr. Caroline Smith. Mr. Hess concluded that, based on the 1981 average test year, the Company requires additional permanent revenues of $4,326.000.

Operating Revenues

55. In their filing for interim relief, MDU made several adjustments to their general filing. The first adjustment increased revenues by $5,579,530 to reflect the full annual effect of current rates which were proposed by MDU to become effective June 1, 1982, in the gas tracking Docket No. 82.4.30. That calculation excluded the unreflected gas cost portion of those proposed rates . The second adjustment increases revenues by $6,613,864 to reflect normal weather. The third adjustment, a

revenue decrease of $4,030,667, restates revenue from contract industrial sales to expected sales levels. The fourth adjustment, a revenue decrease of $24,694, reflects the elimination of revenues received from plant during the test year before it was sold in March of 1981. The rounded net effect of the above adjustments to operating revenues result in present revenues of $57,292,000. (MDU Exh. N, p . 9)

56. Mr. Hess of MCC proposed no further adjustments to the Company's pro forma revenue figure of $57,292,000. In adopting the Company's adjustments, Mr. Hess explained that he used MDU's 1981 adjusted test year results of operations from its interim case as a starting point "because it closely conforms to the rate making principles adopted by this Commission in Order No. 4834c in Docket No. 81.7.62" (MCC Exh. 1, p. 2).

57. The Commission determines that the adjustments to revenues in the amount of $8,138,000 proposed by the Company in their interim filing and adopted by MCC for purposes of the general case are proper in this proceeding and reflect preferred ratemaking procedures. The resulting pro forma revenues are $57.292.000.

Expenses

Cost of Gas

58. In their interim filing, MDU restated test year cost of gas to the level of cost developed by the Company in Docket No . 82.4.30, a gas cost tracking filing. The resulting adjustment was an increase to the cost of gas in the amount of $9,575,000. This adjustment matches the cost of gas to the cost of gas included in the rates used to determine the first Company revenue adjustment. (MDU Exh. N, pp. 9-10)

59. MCC witness Hess proposed no further adjustment to the cost of gas and adopted the Company's interim adjustment for the same reasons that he adopted the Company's revenue adjustments. (MCC Exh. 1, p. 2)

60. The Commission finds that the adjustment to the cost of gas

in the amount of $9,575,000 proposed by the Company in their interim filing and adopted by MCC is proper in this proceeding and reflects ratemaking procedures which have consistently been approved by this Commission.

Loss of Off - System Sales

61. A major element of MDU's revised requested increase is the reallocation of fixed system costs due to the loss of off-system sales. The reallocation, as proposed by MDU, would result in an increased revenue responsibility to Montana ratepayers of $1,441,467. (MDU Exh. O, DAB-12, p. 2)

62. MDU has sought off-system sales, in large part, to reduce its current excess deliverability of gas. This excess results from the Company's aggressive gas acquisition policy which has been the source of Commission concern for some time. See, e. g ., Order No. 4784, Docket No. 80.7.52, April 13, 1982; Order No. 4802a, Docket No. 81.4.45, October 5, 1981.

63. On August 12, 1981, MDU entered into an agreement with Colorado Interstate Gas Company (CIG) for sale and storage of gas. The contract provides for sales from MDU to CIG for 15 years, divided into three five-year service periods. During the first five years, MDU is to deliver, on a firm basis, approximately 17.85 Bcf of gas per year. During the second five-year term, MDU would sell to CIG, on a "best efforts " basis, up to 8.175 Bcf annually. During the third five-year term, MDU would deliver gas at its sole discretion and only those supplies in excess of MDU's system- requirements. (MDU Exh. C, DPP-1)

64. On February 19, 1982, the Federal Energy Regulatory Commission (FERC) issued an order granting MDU a certificate to make sales for resale to CIG pursuant to the contract described above, excepting the third five year term, and also approved rates applicable to such sales in Docket No. CP81-316, et al. In finding that public convenience and necessity required the certification, the FERC noted that MDU's on-system customers would incur significant rate savings, and that MDU was required

to file rate decreases with its state commissions to reflect those savings . (MDU Exh . C, DPP-2)

65. The CIG sales commenced March 1, 1982. On March 3, 1982, MDU filed its application with this Commission for an interim rate decrease reflecting the effects of the CIG sale. The Commission approved a revenue decrease attributable to reallocation of fixed costs in the amount of $1,778,486. (Order No. 4834c, Docket No. 81.7.62, April 22, 1982.)

66. Actual deliveries to CIG were to commence on November 1, 1982. Shortly before that date, however, CIG advised MDU that it would not purchase the full amount of gas for which it had contracted. Although CIG initially stated that it would purchase one-half of the contracted amount, it later informed MDU that it would purchase only 2.36 Bcf per year. (Appendix G, Application for Additional Interim Rate Relief.)

67. On February 1, 1983, MDU filed with the FERC a Complaint and "Request For An Order Directing Colorado Interstate Gas Company To Resume Purchasing Gas At Certificate Level And For Relief Pendente Lite. " This Complaint has been denominated FERC Docket No. CP83-180. (MDU Exh. E, DPP-R1)

68. MDU's position has been, and continues to be, that the CIG contract approved by the FERC is a firm contract, obligating CIG to take gas at the specified levels. (MDU Exh. E, DPP-R1, pp. 4-5) None of the parties in this Docket disagree.

69. Testimony of MDU witness Price reveals the relationship between loss of the CIG sales and the Company's gas storage and "take-or-pay" exposure. MDU has current storage capacity of 200 Bcf, with 175 Bcf of stored gas. (TR, Vol. I, pp. 41-42) It is in the process now of adding another 130 Bcf of storage capacity. (TR, Vol. I, p. 50) MDU has an on-system annual market of 48 Bcf, and an off-system market of 6 Bcf. (MDU Exh. O, DRB-8) In 1982, it was required to take 71 Bcf. In 1983, this obligation will be even greater. (TR, Vol. I, p. 44) The obvious result is excess deliverability. Price estimated that MDU would have to reduce

take obligations by 44 percent to match its supply and demand, and anticipated success in this effort. (TR, Vol. I, pp. 45-47, 111) As a "quid pro quo" for these reductions MDU has agreed to store, free of charge, gas it is contractually obligated to take from oil producing wells. (TR, Vol. I, p. 83)

70. MCC witness Hess urged the Commission not to reallocate fixed costs as MDU requests. He stated simply that Montana ratepayers should not be responsible for those fixed costs when there is no showing that CIG has the right to reduce its take. (MCC Exh. 2)

71. Price responded that MDU stockholders should not now bear the risk of loss when its ratepayers enjoyed all of the cost savings associated with the CIG sale. He further asserts that denying the reallocation would create a disincentive for the Company to pursue off-system sales. (MDU Exh. E)

72. The Commission does not accept Price's assertion that ratepayers received all the benefits associated with the CIG sale. Past Commission orders and the record in this Docket indicate that MDU benefitted from the sale by reducing a serious excess deliverability. Off-system sales permitted MDU to continue its management preference for aggressive gas purchases, far

in excess of its current needs or even average U. S. deliverability and reserve indexes . (TR, Vol . I, pp . 105, 131) This benefit to MDU will provide continuing incentive to pursue off-system sales.

73. The Commission agrees in principle with Hess' recommendation, although we decline to independently consider CIG's rights. According to MDU, CIG is in violation of its contract by unilaterally reducing the volume of gas it is required to take. MDU believes it has remedies for this breach, and has begun administrative proceedings to enforce the contract. (MDU Exh. E, DPP-2) In the meantime, despite this view of its rights against CIG, the Company is asking its ratepayers to fill a revenue void pending vindication of its rights. Where the parties to this Docket have no dispute regarding MDU's ultimate

right to recover from CIG, the Commission does not believe that the ratepayers should be guarantors, forced to indemnify the Company for the revenue loss which, according to MDU's interpretation of FERC certification, is the responsibility of an off-system customer. Rates resulting from that treatment would be neither just nor reasonable.

74. If MDU indeed does not benefit at all from the CIG sale, as Price asserts, then there are compelling reasons, aside from equity, for the Commission's approach. This is so because MDU would have no incentive to pursue its remedies to the fullest when it has nothing to gain from those efforts.

75. MDU asserts that fixed system costs must be allocated on the basis of actual use, and the Commission ascribes to this general principle. The Commission does not agree, however, that legal requirements to use MDU's facilities in a contracted amount should be ignored. To do so would place ratepayers in the highly unfair position of acting as a buffer between the Company and its off-system customers. The Commission chooses to allocate costs based on actual, and actual obligations for, use. In this way, Montana ratepayers will fully contribute their required share of revenues, and no other.

76. The Commission agrees with the general proposition that it has no jurisdiction to interpret contracts or fashion remedies for their breach. This principle, however, is inapposite to the present Docket. All parties before the Commission have expressed agreement regarding requirements of the CIG contract. The Commission accepts these expressions without question. To do otherwise would indeed require some independent Commission interpretation of the- contract. We view this interpretation of the CIG contract as an uncontroverted fact presented by the Applicant.

77. MDU raises a similarly misplaced argument regarding federal pre-emption in its post-hearing brief. The Company contends therein that the Commission would somehow indirectly interfere with exclusive FERC jurisdiction by refusing to reallocate costs

away from off-system customers. The Commission is not convinced that it is powerless to independently allocate fixed system costs in determining just and reasonable rates. Assuming, arguendo, that MDU is correct, however, the Commission: would not be precluded from allocating fixed costs as currently calculated.

78. Analysis of MDU's argument requires consideration of FERC's role in the CIG off-system sale. The lack of conflict then becomes apparent. The FERC order in Docket No. CP81-316, et al., found that public convenience and necessity required approval of MDU's proposed off-system sale. The FERC, therefore, approved the CIG contract calling for specified gas takes, as described above. In other words, the FERC, itself, endorsed allocation of fixed costs commensurate with the sale at volumes specified in the contract. No Federal action has revoked or changed that endorsement. This Commission does not interfere, directly or indirectly, with FERC jurisdiction or action by recognizing use obligations arising from the CIG contract as approved by the FERC .

79. MDU lastly argues in its brief that failure to adopt the Company's proposed reallocation -would have the effect of "stranding a portion of the MDU rate base in a never-never land where it will earn no return, " in violation of due process requirements . (MDU Opening Brief, p . 29) Again, the Company cites ratemaking requirements which this Commission observes, and then proceeds to misapply them. MDU is unquestionably entitled to a fair return on its rate base. That guiding principle, however, is of no aid in determining what rate base is fairly attributable to Montana ratepayers.

80. A corollary to the fair return principle is that unfair allocations of cost are prohibited. MDU contends that refusal to reallocate fixed costs would be unfair in creating stranded rate base.

81. The Commission fully agrees that MDU is entitled to a fair return on its used and useful rate base. The question is <u>who</u> is obligated to pay the return on fixed costs originally

allocated to the CIG sale. MDU claims that obligation is CIG's, and this Commission accepts that position. It is clear, then, that those fixed costs are not in a "never-never land." Instead, they are in a sphere where CIG is obligated to pay a fair return on them, and MDU has a right to exact that return. Given these rights and obligations, it would be unfair for this Commission to disregard them and allocate the CIG revenue responsibility to Montana ratepayers.

82. MDU further contends that it would be unfair to force its stockholders to bear the losses associated with the CIG sale when its ratepayers experienced all the benefits. This argument is flawed for two reasons. First, as noted above, the Commission rejects the notion that MDU does not benefit from off-system sales. More importantly, MDU itself believes that CIG is responsible for the losses which the Company seeks to recover from ratepayers. In other words, MDU is requesting this Commission to transfer to its Montana ratepayers risks which the Company claims are not valid risks at all, and which neither the Company nor the ratepayers should bear.

83. Finally, it seems appropriate to address a peripheral issue which was raised by the parties, and which bears on the reasonableness of rates approved herein. Montana law requires that utility property used in determining a fair return must be "actually used and useful. " 69-3-109, MCA.

This provision has been alluded to in Finding No. 81 as a requirement where rate base may necessarily be "stranded."

84. MDU has added property at a cost exceeding $8,000,000 in order to transport and store excess gas which it intended to sell off-system. (TR, Vol. I, pp. 72-73; MDU Exh. D, DPP-2, p. 3) Absent this investment, MDU would have incurred nonrecoverable take-or-pay penalties as a result of excess deliverability. Furthermore, when asked if the same facilities would have been constructed for a CIG contract requiring a 2.36 Bcf annual take, Price responded:

Most of the same facilities would have been constructed, but, admittedly, they would not have had to be as large.

> For example, the Hathaway station could have been constructed with possibly one compressor instead of two if the level was the 2.36 level. But then again, if we are successful in acquiring another off-system purchaser, why, those facilities -- the entire horsepower will be used and useful again. (TR, Vol. I, p. 114)

85. The Commission finds that there are serious indications that MDU's requested reallocation would run afoul of the requirement that property be actually used and useful. In agreement, MCC witness Hess stated that, if the Commission were to reallocate the fixed costs to Montana ratepayers, "it is possible that some of the facilities that have been included in rate base should be considered to be not used and useful." (TR, Vol. I, pp. 177-178) Due to the Commission's finding that fixed costs should not be reallocated, no specific findings are necessary regarding used and useful portions of MDU's rate base.

O&M Expenses

86. In their interim filing, MDU adjusted various O&M expenses to reflect previously approved ratemaking procedures (MDU Exh. N, pp. 10-14). Mr. Hess of MCC adopted all of these adjustments in his testimony and further adjusted labor expense and royalties expense to reflect actual rather than estimated data (MCC Exh. 1, p. 3).

87. The - Commission determines that the various adjustments to O&M expense proposed by the Company in their interim filing and further adjusted by MCC are proper in this proceeding and reflect ratemaking procedures which have consistently been approved by this Commission. MCC's use of actual rather than estimated data resulted in a reduction of wages expense in the amount of $269,000 and a reduction of royalties expense in the amount of $2,000. The Commission approves MCC's further adjustments totaling $271,000 as the use of actual data is generally preferable to unsubstantiated estimates or projections. The resulting net adjustments to O&M expenses in this proceeding are an increase in the amount of $797,000 ($1,068,000 - 271,000 = $797,000).

Rate Case Expense

88. The Company proposed to charge rate case expense currently rather than amortizing it over a period of two years, as has been done in the past. Mr. Ball testified, "The one-year amortization matches the frequency of gas rate - filings in Montana experienced since 1977" (MDU Exh. N, p. 11).

89. MCC witness Hess did not accept MDU's proposal of a one-year amortization of rate case expense. He said that he saw no reason for departing from the two year amortization (MCC Exh. 1, p. 7).

90. The Commission believes in the concept that rate case expense for utilities should be amortized over a period of time of at least two years. Even though MDU has filed for general rate relief for their Montana gas operations on a fairly regular basis over the last few years, the Commission does not believe that it would be correct to assume that this trend will necessarily continue based on current inflation rates. The Commission, therefore, determines the two-year amortization of rate case expense to be proper in this proceeding.

Forecasted Operation & Maintenance (O&M) Expense

91. Mr. Ball's proposed Adjustment No. 18 (Exh. O, p. 13; Statement G, p. 17), reflects $1,490,482 of additional system O&M expense ($460,000 Montana). The O&M expense adjustment results from Mr. Castleberry's forecast of various O&M expense categories[1] for calendar year 1982.

92. Mr. Castleberry's statistical forecast (See Exh. R, p. 4-9) consisted of an autoregression technique whereby the functionalized expense categories for each of years 1972-1981[2] were regressed on the previous years expense levels. The resulting coefficients allowed for projections of 1982 expense levels which in turn were used to formulate adjustments to the

test year cost of service.

[1] Production, other gas supply, transmission, customer accounts, sales
expense, and administrative and general expense.

[2] Other gas supply and sales expenses featured only 1977-1981 and 1974-1981 historical data bases. respectively.

93. Mr. Hess' test year cost of service calculation does not include the MDU O&M adjustment (Exh. 1, p. 8). MCC witness Mr. Drzemiecki, testifying in opposition to the adjustment, argues that the O&M adjustment results from a statistically weak mathematical formulation of a fundamentally wrong ratemaking concept (See Exh. 3, pp. 6-39).

94. Mr. Drzemiecki maintains that the O&M expense forecast is flawed in that the bivariate specification inherently assumes that the relationship between expense levels and all explanatory variables remains constant over a time period which has featured highly erratic load and resource market conditions. Mr. Drzemiecki maintains that operating expenses are sensitive to market conditions and that the erratic market--both historical and anticipated--renders the regression specification invalid.

95. A second statistical area addressed by Mr. Drzemiecki is an alleged inflationary bias. In that the regressed data base reflects nominal dollar values, the resulting coefficients include an inflation component of unknown magnitude . Furthermore, the least squares ("best fit") technique places greater emphasis on the data observations of greatest magnitude. Mr. Drzemiecki argues that the result is a forecast "well in excess of the actual levels incurred in light of lower inflationary expectations in the future periods" (Exh. 3, p. 20).

96. Mr. Drzemiecki further testified that the reliance upon the R2 statistic as a sole measure of validity and the apparent selective application of the model further diminish the validity of the proposed O&M expense adjustment. The R2 test does not alone validate model specification and the model's inability to measure similar functionalized expenses makes the specification

suspect and "end-result orientated."

97. Lastly, Mr. Drzemiecki addresses the fundamental shortcomings of forecasted expense adjustments to authorized revenues. Unlike a competitive market where net revenues are highly sensitive to cost levels, Mr. Drzemiecki argues that the expenses of regulated monopolies must be subjected to rigorous tests for reasonableness--tests which cannot be applied to the forecasted expenses proposed by MDU. Mr. Drzemiecki further argues that the proposed adjustment diminishes the operational efficiency incentives found in a competitive firm and ignores productivity gains required in a competitive market.

98. In rebuttal, Mr. Castleberry (Exh. S, pp. 2-9) points out that the effect of omitted variables (e.g. market conditions) on the projected expense levels is reflected in the historical correlation between those variables and the value of the explanatory expense levels. Even so, Mr. Castleberry argues, the O&M expense levels are not highly sensitive to fluctuations in market demand, rather, they relate to the fixed capacity of the system.

99. With respect to the alleged inflationary bias, Mr. Castleberry discounts the probability of any erratic change in inflation levels from the recent past and points out that backcasts confirm the ability of the expense models to account for both high and low inflation cycles. The backcasts, in addition to the R2, were used to validate the specification. Mr. Castleberry further argues that the fact that the specification did not provide adequate results when applied to other functionalized expense categories reflects on the nature of those expenses, not the specification of the model.

100. Lastly, Mr. Castleberry argues that the Commission's legal authority to initiate investigations of expense levels and the recurring nature of rate filings both provide ample opportunity for the Commission to ensure efficient operations resulting in reasonable expense levels.

101. In examining the arguments and counter arguments, the Commission finds at least one benefit to the econometric specification proposed by MDU-the autoregressive model does not, of course, require controverted forecasts of explanatory variables. However, that beneficial convenience carries with it several shortcomings--one of which is the inability to identify what causes (and to what extent) the increased expenses for which MDU seeks additional revenues.

102. The testimony addresses only two explanatory causes of increased expense levels--inflation and market conditions. To the extent that loads (demands at various times of the year at various parts of the system) and number of customers affects expense levels (e.g. See Tr. p. 258), they will also affect revenue levels. No attempt is made to compute increased revenue levels resulting from either additional sales or additional customers.

103. If one were to accept MDU's proposition that the expense levels are not sensitive to sales and number of customers (and therefore not offset by additional revenues), then one must assume that inflation is the predominate factor. Here, the Commission would point out that the actual 1982 inflation rate does represent a significant departure from the recent trend. [3]

---

[3] The recent trend is: 1978 (7.6%), 1979 (11.5%), 1980 (13.5%), 1981 (10.2%), and 1982 (6.0%) . The percent change in CPI from YE 1981 to YE 1982 was 3.9%. (CPI, U. S. Cities Average, 1983 ERP).

The actual 1982 increase in the Consumer Price Index is certainly within striking distance of unaccounted for productivity gains.

104. For the reasons set forth above-

1) failure to match post-test period costs with post-test period revenues,

2) the departure of the actual 1982 inflation from the recent historical trend, and

3) failure to consider offsetting gains in productivity-the Commission rejects the forecasted O&M expense adjustment.

<u>FICA Taxes</u>

105. The MCC adjustment to wages expense resulted in a $13,000 reduction in FICA taxes (MCC Exh. 1, p. 3). The Commission determines that this adjustment is appropriate since this reduction coincides with the Commission approved wages adjustment which was a reduction in the amount of $269,000. The Commission, therefore, finds the MCC adjustment to FICA taxes in the amount of $13,000 to be appropriate in this proceeding.

<u>MCC Tax</u>

106. In their filing, MDU estimated the Montana Consumer Counsel tax to be .09 percent. Mr. Hess adjusted this tax to reflect the actual MCC tax rate of .06 percent (MCC Exh. 1, p. 3). The Commission determines the MCC adjustment to MCC taxes, a reduction of $17,000, to be proper in this proceeding in accordance with the Commission's preference to use actual rather than estimated tax data.

<u>Pro Forma Interest Expense</u>

107. MCC witness Hess calculated pro forma interest expense using the same procedure used by the Company in its exhibit. The interest expense Hess calculated is somewhat higher than the Company's because he used his adjusted rate base and MCC witness Smith's weighted debt cost rather than the rate base and weighted

debt cost proposed by MDU. The Commission finds that a pro forma interest adjustment is proper to reflect the tax effect of interest on construction. By utilizing the approved rate base and weighted cost of long-term debt in the methodology, the-Commission finds an increase to Montana Corporation License Tax in the amount of $32,000 and an increase to Federal Income Tax in the amount of $201,000 to be proper in this proceeding.

Amortization of Pre-1974 Gain

108. In his proposed adjustments, Mr. Hess included an allowance for the amortization of pre-1974 profit on debt reacquired at a discount. Mr. Hess explained:

> Prior to 1974 MDU flowed the gain on reacquired debt directly to earned surplus. In 1974 MDU began crediting Account 257 Unamortized Gain on Reacquired Debt with the profits, and amortizing the profits over the life of the bonds. I understand that Dr. Smith will take into account the profits on reacquired debt as they appear on the company's books, but that does not include profits realized prior to 1974. Consequently, I have followed the procedure adopted by this Commission in MDU's prior rate cases, and added the amortization of such profits to the utility operating income. (MCC Exh. 1, pp. 6-7)

109. The Commission has consistently ruled that pre-1974 profit from reacquired debt should be flowed through over time to consumers to reflect a benefit to those who had been paying for the cost of the debt before being reacquired. The Commission, therefore, finds the MCC adjustment in the amount of $14,000 to reflect the pre-1974 gain on reacquired debt to be proper in this proceeding.

Revenue Requirement

110. The following table shows that additional annual revenues in the amount of $4, 660, 000 are needed by the Applicant in order to provide the opportunity to earn an overall return of 11.08 percent:

MONTANA-DAKOTA UTILITIES COMPANY
Revenue Requirement-Montana
1981 Test Year
(000)

	Company Per Books 1981 Adjusted	Company Interim Adj.	Interim Per Company	MCC Adj. To Interim	PSC Adj.	Total Accep d Adj. Col.1
Operating Revenues	$49,154	8,138	57,292	0	0	8,138
Expenses						
Cost of Gas	$30,327	9,575	39,902	0	0	9,57
Other O&M	10,744	1,068	11,812	(271)	(271)	7
Total O&M	41,071	10,643	51,714	(271)	(271)	10,37
Depreciation & Depletion	1,740	(11)	1,729	108	108	97
Taxes other than Income	1,146	57	1,203	(30)	(30)	27
Current	(3,034)	(1,365)	4,399	139	227	(1,13
Deferred	4,374	(62)	4,312	94	94	32
Investment Tax Credits	26	0	26	0		0
Amortization of Investment						
Tax Credits	(20)	0	(20)	0		0
Total Operating Expenses	$45,303	9,262	54,565	94	128	9,390
Operating Income	3,851	(1,124)	2,727	(94)	(128)	(1,25
Amortization of Pre-1974 Profit on Reacquired Debt	0	0	0	14	14	14

Total Available for Return	3,851	(1,124)	2,727	(80)	(114)	1,23
Rate Base	44,860	(3,871)	40,989	3,887	3,761	(110
Rate of Return	8.58%		6.65%			

PART E
OTHER ISSUES
Input Rate Criterion for Interruptible Service

111. MDU witness Mr. Mayer proposes to reduce the input rate criterion for interruptible gas service from 4, 000 to 2, 500 cubic feet per hour (Exh. M, pp. 5-7)

112 . In support of the proposal, Mr. Mayer cites the liberalized FERC curtailment provisions which allow for up to 50 new large customers system-wide. The lowered input rate criterion would allow MDU to avoid costly expansion by requiring the new large loads to be compatible with interruptible service. The 2, 500 cf/hr criterion level approximates the FERC curtailment criterion.

113. The proposal is not opposed by any party and is accepted by the. Commission.

Late Payment Charge

114. MDU witness Mr. Fox proposes a late payment charge equal to 1 percent of the unpaid balance at the subsequent billing date (Exh. P, pp. 6-8) .

115. In support of the proposal, Mr. Fox cites the relatively high delinquency rate in Montana with respect to the remainder of the system.[4]
Montana is the only jurisdiction without a late payment charge. Mr. Fox testified that a late payment charge would serve to reduce the balance of

---

[4] Despite having only 30 percent of the system's customers, Montana accounts for 42 percent of the delinquent accounts and 49 percent of the delinquent dollars . (Exh . P, p . 7)

delinquent accounts thereby improving the Company's cash flow and working capital position.

116. In support of the 1 percent late payment charge level, Mr. Fox cites the equitable properties of a percentage based charge versus a flat charge and provides a calculation of working capital revenue requirement of 1.685 percent (Exh. P, CWF-4).

117. No other party presented testimony on the late payment charge issue.

118. In examining the concept of a late payment charge, the-Commission has attempted to weigh the benefits of a charge--avoided capital and administrative costs--with the costs of a charge--a potential to further burden those customers who are truly in a late payment situation. Neither concept, however, is well established in the record.[5]

119. The Commission finds that any excessiveness in the balance of Montana delinquent accounts is likely to be reduced by a recent modification of the winter termination rules, along with MDU's more thorough understanding and compliance with those rules pertaining to winter shutoffs. For that reason, as well as the lack of evidence clearly conceptualizing the economic benefits of a late payment charge, the Commission rejects the proposal to implement a 1 percent late payment charge.

[5] For example, the record fails to even establish the annualized balance of Montana accounts in arrears (See e.g. Exh. P, pp. 6-7 and TR, p. 233)

Rate Design

120. MDU proposes to maintain the existing rate structure which reflects exclusively volumetric commodity charges with a 25 percent winter discount for firm gas service (C. W. Fox, Exh. P, p . 5) .

121. MCC witness Mr. Drzemiecki endorses the Company's rate proposal but cautions the Commission that the volatile gas market conditions warrant a re-examination of gas rate design issues (Exh. 3, pp. 30-31).

122. The Commission accepts the Company's proposed rate structure and finds merit in the suggestions of Mr. Drzemiecki to more thoroughly examine rate design concepts in a future proceeding.

Company Production

123. The Commission has consistently expressed concern over the Company production element of MDU's gas mix. In Order No. 4784, Docket No. 80.7.52, the Commission determined 6.4 Bcf to be the appropriate level of produced gas on which to base the Company's tracking applications. In Docket No. 81.10.98, the Commission emphasized the importance of an approved gas mix, with the expectation that revisions would be based upon evidence establishing good cause therefor. On this basis, in Docket No. 81.7.62, the Commission approved a revised level of 4,259,057 Mcf to more closely reflect actual Company experience within a reasonable range of 6.4 Bcf. This is the last approved gas mix for MDU.

124. In this Docket, MDU calculated its mix of purchased and produced gas based upon annual Company production of 3,816,514 Mcf. The Company's production capacity has not changed, however. MDU witness Price stated that the Company is still able to produce approximately six Bcf per year.

Despite this, he projected 1983 Company production to be about one Bcf. (TR, Vol. I, pp. 109-110). The Commission is quite concerned about the direction MDU has chosen with regard to company production.

125. Although MDU is not expected to produce gas at maximum potential levels, the Commission expects production to be kept at reasonable levels as found in past orders. As noted above, the last reasonable -minimum level of production was found to be approximately 4.3 Bcf annually. The reasonableness of this determination is further borne out in Docket No. 82.11.72, wherein MDU states that actual Company production for the 12 months ending July, 1982 , was 4, 894 , 149 Mcf . (Docket No. 82 . 11. 72, Exh. C, Exh. A, p . 1) The only reason advanced to reduce Company production in this Docket is the loss of off-system sales. Given the discussion above in this order regarding excess deliverability and off-system sales, the Commission finds that further adjustments to the minimum level of Company production are unwarranted. Absent additional developments and

justification, MDU should continue to base its gas mix on a minimum annual Company production level of 4,259,057 Bcf . This requirement allows the Company some flexibility in its Production, while assuring reasonable gas costs for its ratepayers.

CONCLUSIONS OF LAW

1. The Applicant, Montana-Dakota Utilities Company, furnishes natural gas service to consumers in Montana, and is a "public utility" under the regulatory jurisdiction of the Montana Public Service Commission. §69-3-101, MCA.

2. The Commission properly exercises jurisdiction over the Applicant's rates and operations. §69-3-102, MCA, and Title 69, Chapter 3, Part 3, MCA. And Title 69, Chapter 3, Part 3, MCA

3. The Commission has provided adequate public notice of all proceedings and opportunity to be heard to all interested parties in this Docket. Title 2, Chapter 4, MCA.

4. The rate level and rate structure approved herein are just, reasonable, and not unjustly discriminatory. §69-3-330, MCA.

ORDER

1. The Montana-Dakota Utilities Company shall file rate schedules which reflect increased annual revenues of $4.660.000 in lieu of. rather than in addition to, interim rates. The total annual gas revenues of Montana-Dakota Utilities Company will be approximately $61,952,000.

2. All motions and objections not ruled upon are denied.

3. Rate schedules filed shall comport with all Commission determinations set forth in this Order and in such manner so as to increase rates in accordance with the volumetric pricing methodology maintaining the 25 percent differential between winter discount and remainder of year rates.

4. Pursuant to Finding of Fact No. 125, in future filings, MDU is to include Company production levels at no lower than 4,259,057 Mcf.

5. This Order is effective for services rendered on and after June 20, 1983.

DONE AND DATED this 20th day of June, 1983, by a vote of 3-0.

BY ORDER OF THE MONTANA PUBLIC SERVICE COMMISSION.

THOMAS J. SCHNEIDER, Chairman

CLYDE JARVIS, Commissioner

DANNY OBERG, Commissioner

ATTEST:

Madeline L. Cottrill Secretary

(SEAL)

NOTE: Any interested party may request the Commission to reconsider this decision. A motion to reconsider must be filed within ten days. See 38.2.4806, ARM.